

# A.C.E.C. ㄥ<sup>®</sup>

Newsletter of the  
Atari Computer Enthusiasts of Columbus

VOLUME 4, No 11

November, 1986

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## DON'T LET THE TURKEYS



## GET YOU DOWN!

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This newsletter is written and published monthly by the Atari Computer Enthusiasts of Columbus, Ohio (ACEC). ACEC is an independent, non-profit organization interested in exchanging information about any and all Atari Home Computer Systems.

Meetings are held on the second Monday of each month at 7:15 p.m., at DeSales High School (on Karl Road, just south of Morse Rd.), and are open to the public.

Dues are \$12.00 per year, and entitle members to all club benefits (Newsletter, Disk of the Month, Publications Library, SIG meetings, group discounts at selected area merchants, etc.).

The ACEC Newsletter welcomes contributions of articles, reviews, editorials and any other material relating to the Atari computers, or compatible hardware devices and software packages.

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## The Editor's Column

With this issue, I begin my first month as the "real" newsletter editor. Somehow, it doesn't feel much different from my guest appearances the last two months! At any rate, on to the business at hand.

I mentioned several things in last month's issue, items that I had hoped would generate some response and improve both this newsletter and our group in general. In order, my suggestions, and their responses were:

1. Finding a new name for The ACEC Newsletter: So far, I have gotten one (that's right, ONE!) suggestion. While it was a perfectly good name (The ACE Line), I had hoped for a bit more enthusiasm amongst our membership. For that very reason, I am extending my "Name the Newsletter" for one more month. All entries received by December sixth will be considered, and published in the December issue, along with the winning entry at the top of the cover, in huge, garish letters! A fabulous prize, and vast notoriety await the winner! Please, let me hear from you. A letter, a phone call, a message on the BBS (268-0405), all will work!

2. Request for newsletter submissions from the ACEC membership: Here, I must admit, I was surprised. In my first draft of this editorial, I had quite a scathing little tirade concerning the fact that out of a total of more than 120 members, I received only a short article from Charles Brown (as always, thank you, Charles), two reviews by Frank Seipel from our BBS (thank you, Frank), and a copy of Frank's new help file for the BBS. I was going to try to shame everyone into writing all sorts of newsletter articles! Well, wouldn't you

know it, after all that was done, I got a disk in the mail from Sheldon, with an excellent article (his closing statements, I'm afraid), and an entire issue of our ST SIG's newsletter! So, from famine to feast. Let's keep the momentum going. It's really not that difficult to write an article, and it can often be very rewarding and educational in the process. So come on, live a little! Even the newest members can often find some little tidbit of information that most of us don't know about.

3. Monthly Columnists: I'm afraid I wasn't quite so lucky here. I really haven't heard word one about the idea of having one or more columns written by one or more members on a variety of topics. I think I can manage to get an ST column written by Sheldon Wesson and Mark Shuter, and hope I can talk Dave Beck into an ACTION! column. Other than that, I'm in serious trouble. This is your newsletter -- it will be as good or as poor as you help make it. Short or long, as long as I've got something to show every month, I'm a happy guy. How about a Beginner's Column? A Local BBS Update? A New Product write-up?

4. Letters to the Editor: Another area with an unfortunate lack of response. No one's got any questions?

5. Advertisements: Although I have yet to have received any requests for newsletter advertisements, I know I was not particularly clear about the requirements, if any, for this. The officers haven't yet decided whether to restrict this service to ACEC members only, or to accept ads from anyone for free. We also need to discuss accepting advertisements from local retailers as well. I'll let you know. If anyone has any ideas or suggestions, I'd love to hear them.

Well, at least I got that out of my system. I'd like to apologize for the condescending tone of the above editorial. I realize that writing an

article is not something that most people just can't wait to do, and that it requires not only knowledge, skill and confidence, but also enough "guts" to sign your name to something as public as a published article. But, speaking as someone who has written for our newsletter frequently, it really isn't that hard! Everyone has some area of "expertise", be it a new piece of software, a new experience (installing some hardware modification, or simply buying a new peripheral) or simply some opinions or gossip to pass along. Why not write it down?

Articles of any length, format and topic are welcome. All levels of sophistication are needed, especially those of an introductory nature, since many relative "new-comers" to computing read this newsletter. At present, any format is fine with me (disk, modem, hard copy, LP or cassette tape!). Thanks for your support (excerpt courtesy of Bartles & James!).

This month's issue is, I think, an interesting blend of material. Both the eight-bit and sixteen-bit machines are represented, and the topics have both broad breadth and depth. In addition, there are two indices included; the first is a complete table of contents of The ACEC Newsletter; the second is a listing of all the articles Charles Brown has written for us over the years. Both of these tables are not only interesting reading, but should aid in the search of particular information about Atari computers. You'd be surprised what's hidden away in our back issues. Suggestions for future issues are always welcome; I've got several articles in hold (mostly machine language tutorials!), and would welcome guidance concerning topics to grab from CompuServe and other sources.

Has anybody noticed that these editorials are getting longer and longer? If this keeps up, by next April or May, the newsletter will be 65 pages long! Give me less to write about -- write it yourself!!



## SIG Notes

by Warren Lieuallen

The October ACEC SIG meeting was held on the last Thursday of the month, as we have been doing for many months now. That places us on the 29th, at 7:15 p.m., again at the Grandview Heights Public Library. Unfortunately, that places me out on the streets, trick or treating with my kids.

Attendance was again, I'm certain, a little below par, for reasons I cannot even pretend to fathom, other than the complications of the Halloween festivities. The SIG meetings are such a natural place to get answers to all those questions that you just can't get answered anywhere else. There's nowhere else where you can get such personalized attention from true "experts" (or at least, more experienced users). As far as I'm concerned, we should be turning people away each month for exceeding the fire codes for maximum occupancy.

At any rate, our ever present Charles Brothers led their respective groups through a variety of Atari intricacies. Charles Brown chaired his continuing discussions of Atari BASIC and assembly language. Charles Lusco, on the other hand, continues to offer assistance and information about the many forms of telecommunication available with Atari Computer systems.

As I have recently begun attending the ST SIG's, I will in the future be attending the eight-bit SIG's only occasionally. While this is not particularly newsworthy, I just thought I'd mention that starting next month, there will be another author of the SIG Notes, or perhaps there will simply be no SIG Notes. It's getting so my write-ups

ST SIG Notes  
by Warren Lieuallen

are like having no SIG Notes at all, anyway! Our new vice-president Dave Beck will be co-ordinating the scheduling and organization of the SIG meetings, unless he can find another volunteer. Nonetheless, I cannot emphasize again the value of these informal meetings. Until you've gone at least once, you don't know what you're missing!

All of the above notwithstanding, there is a very strong possibility that there will be no November or December SIG meeting. As Halloween nearly cancelled our group, I see no reason to even pretend to compete with Thanksgiving, Christmas and Hannukah. Besides, Dave is going to have a pretty tough time finding a location on less than two months notice (believe me, I know!). Watch this column, and the ACEC BBS (268-0405) for future updates.

**DON'T  
CLOWN  
AROUND**



**COME TO THE ACEC  
SPECIAL INTEREST  
GROUPS**

**EIGHT-BIT  
SIXTEEN-BIT  
ACTION!**

**DON'T MISS OUT!**

I attended the ST SIG for the first time on October 16th, and felt like I was back at my first ACEC meeting! Being quite new to the ST world, most things are still very bewildering. Nonetheless, the meeting was very interesting, and went very smoothly.

This meeting, as all the others, met in Classroom Four at Doctors' Hospital North. Presiding were Larry Mendel, Sheldon Wesson and Scott Wade. After a frantic session of Disk of the Month pandering (there are now 30 disks in the ST library!), the demonstrations got underway.

Scott Wade had the lead-off position, and presented a very enthusiastic demo of Thunder!, a RAM resident (if you wish) spelling checker. Very impressive, especially for those of use who write a lot, and still manage to spell poorly.

Next, Sheldon Wesson lit into an update on the C language, basically comparing it to the more familiar (at least to me!) BASIC dialect, complete with handouts and overheads (as you know, Sheldon never does anything halfway!)

Finally, the session broke out into the melee of a question and answer session, and rapidly degenerating into a general shouting match, much like the eight-bit meetings!

The next meeting of the ACEC ST-SIG will be Thursday, November 13, at 7:30 p.m., in Classroom Four at Doctors' Hospital North. Anyone who owns, or is interested in an ST computer owes it to himself to attend at least one of these very informative meetings.



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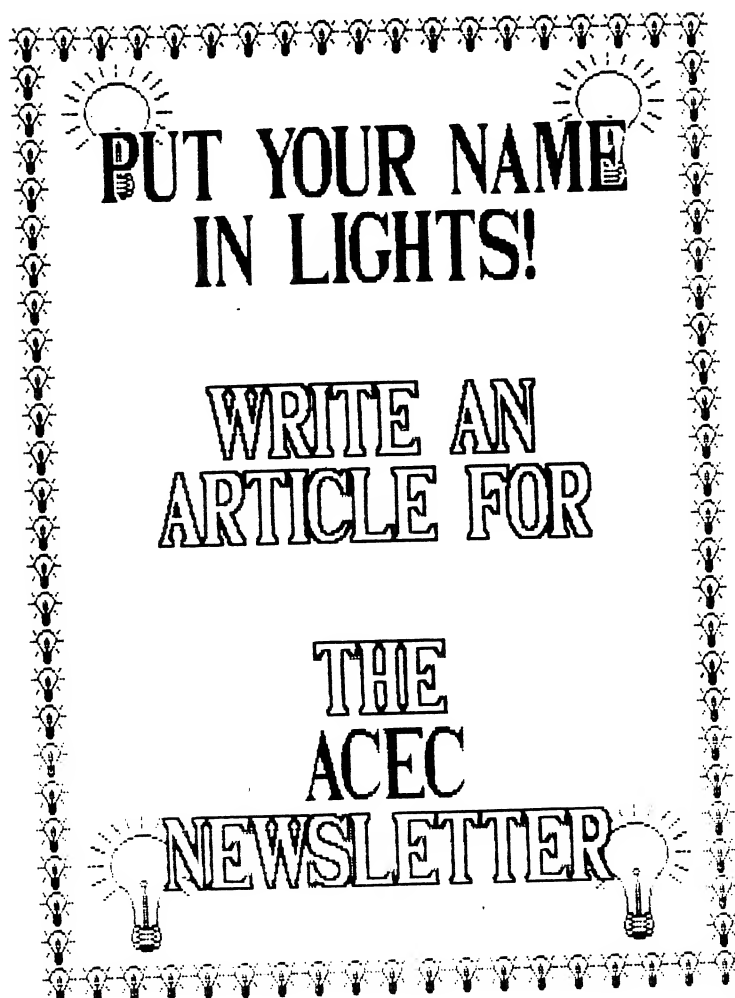
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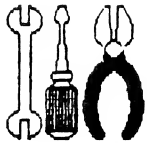
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## Hardware Review

R-Time 8 Cartridge  
by Frank Seipel

Cost - \$50.00  
Format - Cartridge  
Manufactured by ICD, Inc.  
Address - 1220 Rock Street,  
Suite 310  
Rockford, Il.  
61101-1437

The R-Time-8 adds an external, real-time clock to the Atari. This is very useful for telecommunications and Spartados time/date stamping. It works with all Atari computers -- the cartridge has a expansion port on the back so that a user may plug R-Time 8 in, and then another cartridge, such as Action! on top of it. If you are using an Atari 800, none of this is necessary as it can be plugged into the right slot.

The latest version of Spartados (for XL/XE users only) is included in the package. If you are not going to use Spartados, then you must use the "Z:" handler (more on that later).

With Spartados, the user need only type "DOS" and he/she has access to all the time/date commands. If you have an XL/XE, this is the way to go.

However, if you are not using Spartados, you will have to use the "Z:" handler supplied on the back of the Spartados disk. This handler wastes a lot of memory, although it is easy to use and displays a time-line at the top of the screen (identical to Spartados).

The "Z:" handler operates like any other Atari BASIC device -- it is very simple to use. For instance, to read the time, the following would be used:

```
DIM TIME$(10)
OPEN #DEVICE,4,0,"Z:"
XIO 32,#DEVICE,0,0,"Z:"
INPUT #DEVICE,TIME$
PRINT "Time: ";TIME$
```

The main disadvantage of the "Z:" handler is memory -- it really eats it up. If you are using the R-Time for a BBS that is written in BASIC, you will need every extra byte of memory that you can get.

Unfortunately, because of the expansion port on the back of the R-Time 8 cartridge, it cannot be accessed directly by PEEKs and POKEs. Instead, a machine code subroutine is necessary. The code is very simple: First the bank of memory containing the chip addresses is selected. Next the desired register is read. Finally, the chip is deselected.

The clock chip has six registers: hours, minutes, seconds, day, month, and year. The disk contains the source code to the "Z:" handler, so a routine to read the time can be written with relative ease.

### Support

In the line of terminal/BBS programs, I have found the following to support R-Time without modificaion:

Express! 1030 v3.0  
Amodem 7.0 (included in package)  
Carina BBS



## BBS Review

Review of Carina BBS  
by Frank Seipel

Price - \$70.00  
Required - 48K, one disk drive  
Recommended - High-speed storage device (RAM/Hard drive)  
Distributed by Carina Software Systems  
Address - 12390 57th Road North  
Royal Palm Beach,  
FL 33411  
Phone - (305) 793-2792

If you have worked with the 850 interface, you have probably used (and hate!) concurrent I/O. This program takes the pain out of modifying your BBS. No longer must you call CLM or OPM (open and close modem subroutines); Carina handles it all for you, via the Modem Operating Environment (MOE). You don't even use "R:", but rather, "E:".

Almost anything that works in local mode (except the Position statement) will also work while online. You no longer need a friend to call the board for "testing" -- You can do it locally with this program.

The BASIC programs that make up Carina do not have any machine code strings, etc., so they are readable. However, the programs do make a call into Carina/MOE periodically to send a sector, ring the chat bell, etc.

All of the important subroutines that you won't be modifying -- U/L & D/L a sector, Chat mode, ^C, ^S are written in machine code; most are on interrupts. In Carina, normal I/O statements work over the modem, with ^C and ^S (abort and stop/start page listing keys). Chat mode may be entered at any time, regardless of

whether a BASIC module is loaded in at the moment. And to top it all off, BASIC can be entered online! The only limitation of the online BASIC is that it is a line-oriented system (in other words, the control arrow keys may not be used). This makes editing programs a chore, but it is still very useful.

The BBS consists of modules. The main modules are:

Waitcall	Wait for caller, log in users
Board	Message base/BBS commands
Filetran	Upload/Download files
Msged	Write/Edit messages
SubCmds	Sub-commands

Because the program switches between modules, a normal disk drive such as a 1050 is not a good idea -- If you use such a drive, there may be 15-40 second pauses when the user switches modules. Thus it is highly recommended that one use a RAMdisk or Hard drive.

Almost any modem can be used with Carina, as long as it accepts Hayes commands. The Avatex will also work, with some modifications (which are included with the program).

I will list some of the features of the BBS:

Works with virtually any DOS

300/1200/2400 Baud

Passwords w/access levels 0-9

Automatic access control based on calls, messages posted, and uploads

Multiple message bases with user-definable access levels

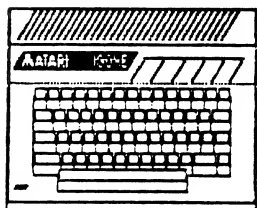
Editing of already-existent messages

Databases w/user-definable access levels

Online game(s)

Voting poll  
 E-Mail  
 User listing  
 Full-featured message editor  
 Sysop/Co-Sysop features  
 DOS Online  
 BASIC Online  
 User log updates/deletions  
 Message base creation/deletion

If you want to run a custom BBS, this is the program to use! I highly recommend it. (For those of you who would like to see Frank's Carina BBS in action, call the Pandora BBS at 471-9209 - Ed.)



## Eight-Bit Atari Programming

THE IMPORTANCE OF DATA  
 by Charles W. Brown

At the September SIG meeting, we were talking about opening a file for either input (reading from) or output (writing to). One of the questions raised was, "Why would I want to do a thing like that?" As I explained at the SIG meeting, one of the possible reasons is to save your data for future use.

First of all, consider exactly what a program is. A program is just a list of instructions. Their purpose is to tell the computer what to do. On the other hand data is the information that the program works with. This article was written with a program called Atari Writer Plus (and edited with PaperClip! - Ed.). The words that you are reading are the data. The program takes the data that I have typed in and does to it what I have instructed (viz., prints it). The computer needs both data and a program; the data so it will have something to work with, the program so it will know what to do with it.

Many programs use data. However, unless that data is specifically a part of that program (such as DATA statements), you will have to enter the data each and every time you run the program. This would be a very hard and time wasting job. Luckily, it is possible to instead just enter the data once, and then have the program save it (usually to the disk). The program can then automatically re-enter the data for you the next time it is run.

All sorts of programs save their data for future use in a special data file. There are spreadsheets like Syncalc and Visacalc, data base programs like Synfile and File Manager Plus, etc. Even games that save off your high scores do so via a data file. Imagine a check book program. If you didn't save off your data. You would have to type in all the information about your checks each time. It would be a lot easier to do it with a pencil and paper.

You might say that the data is just as important as the program that works on it. Take this article for example: if I didn't save it off as a disk file, I would have to retype it each time I wanted to use it. So remember to keep a good eye on your data files, too. If you back up your valuable programs, you had better have copies of your valuable data files as well.



## Foreign Facts From Far Away

First Word Printer Drivers  
from the Austin Atari  
Computer Enthusiasts  
by Michael Detlefsen

First Word printer drivers are a pain. Even more painful, there are two of them for dot matrix printers: if you have version 1.03 or earlier, you have to use one with five parameters in the header (all zeroes unless you are using a daisy wheel printer); if you have version 1.04 or later, you have to use the one with six parameters. If you try to use the earlier driver with the newer 1st Word, it won't work, and vice versa. The procedure below works with both the old and new drivers.

### Step One:

Boot 1st Word. Select the PRINTER folder and look at the files inside. You will see several files with the .HEX extension. These are the TEXT versions of the binary printer drivers. You will see, for example, EPS\_LX80.HEX, SMM804.HEX, BRO\_HR15.HEX and INSTALL.PRG. The first two are dot matrix drivers, the third is a daisy wheel driver, and the fourth one is the program which will turn your text file into the binary file that the program can use. There are more files in the PRINTER folder, but these will give you the general idea.

### Step Two:

Find your printer's instruction manual (if you don't find your manual, and do not have an Epson LX-80 or RX-80, or an Atari SMM804, then give up now! You'll NEED that manual.). Turn to the pages where it says something like "Function Code Reference". This is the section where it will list the control

codes for your printer. It will say things like "Select NLQ (Near Letter Quality) character set", followed by several numbers like "1B 34" (these are in the hexadecimal format, which is what 1st Word requires. If yours are in decimal, i.e. if the first number is 27 instead of 1B, then you will have to convert them to hexadecimal first.), or maybe characters like "<ESC> 4". These are actually the same; ASCII 1B is <ESC>, and ASCII \$34 is "4". Get it?

### Step Three:

Now go back to your computer, double click on (for example) the file named EPS\_RX80.HEX. This will be loaded into the 1st Word memory and you will be ready to proceed. You will see on the screen a header which will say "Epson RX-80 Matrix Printer Driver Configuration Table". If you scroll down a bit, you will find a list called "Miscellaneous configuration variables". 1st Word version 1.03 and earlier have five things listed, and version 1.04 and later have six things listed, and they are not interchangeable. Don't even try!

### Step Four:

Scroll down a little further. You will see a column of comments to the right of some numbers. The comments are there to tell you what the numbers on that line are for. Find where the comments read "Draft underline on". The line should read:

1A, 1B, 2D, 1 \* Draft underline on

The numbers to the left of the comment say "1A, 1B, 2D, 1". The first number (1A) is the line number (in hex) in the configuration table. The second, third and fourth numbers are the characters sent to the printer to tell it to start underlining in this case.

### Step Five:

Find the codes for underlining in

your manual. The example in Step Three is "1B 34" which is the code for the Star SG-10 printer. You can see that the Epson RX-80 requires three characters. Well, we need only two for our example SG-10, so shoot the cursor down to line 1A, put it on the "2" in "2D", and delete the "2D, 1" with the DELETE key. Now type in YOUR codes. Using our example, the line now reads:

1A, 1B, 34 \* Draft underlining on

The asterisk (\*) means that anything that is written after it on that line is ignored by the INSTALL program. Any line of control code that you see that has an asterisk in front of it is a function that is not used in this driver. If you delete the asterisk then that function will be included in the installation, assuming that your printer will support it.

#### Step Six:

Assuming that you will want to turn off underlining as well as turn it on, go down to the next line (1B) and modify it so that it has YOUR codes to stop underlining. It should be fairly easy by now.

#### Step Seven:

Save the file back to disk when all the codes have been modified appropriately. Quit 1st Word so that you are in the GEM desktop. Double click on the PRINTER folder, and run (double click) the INSTALL.PRQ program. It will present you with a menu of files, one of which will be the one you just modified (EPS\_RX80.HEX). Select that file and the INSTALL program will then turn it into the binary printer driver, which will be called 1ST\_PRNT.DOT. There was one already there, but it will now be replaced with the new one.

#### Step Eight:

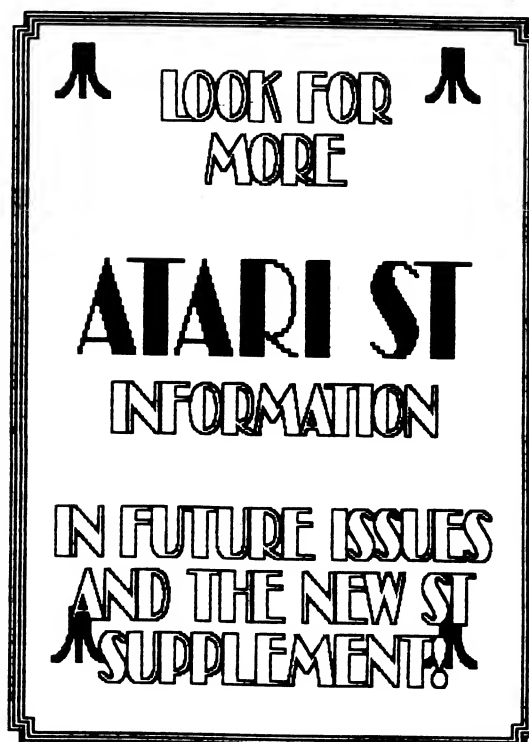
Now comes the important part that confuses most people. Since 1st Word

does not look inside the folder for the printer driver, you must move it into the main directory. Click on the 1ST\_PRNT.DOT and drag it over to the disk icon of the drive that you have 1st Word on. Release the button and the file will be copied to the main directory. You will get a message that you already have a file by that name in the main directory, but just press RETURN (or click in the OK box) and it will be replaced with your new one.

#### Step Nine:

Treat yourself to that Dr. Pepper that you have in the fridge to celebrate (I did tell you about that part, right?). You have now installed a new printer driver on your 1st Word disk.

Now, you are probably going to want to change other codes, and it is done just like the example. Work carefully, check the numbers, and don't leave out any of the steps and it should be easy by now. And don't worry about any of those numbers in the text file below where it says "Translation Table". Leave them alone, and they'll leave you alone!





## In-Depth Tutorial

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CHRIS CRAWFORD's  
ASSEMBLY LANGUAGE COURSE - Lesson 2 of 8

### 6502 ARITHMETIC

#### NUMBER SYSTEMS

In this lecture I will take up the problem of arithmetic on the 6502. I choose this topic only because it is fairly simple to do on the 6502. There are a couple of nerve-jangling problems associated with 6502 arithmetic, but I will breeze over those in a very cavalier fashion.

Before we can do arithmetic, though, you must know a little bit about number systems. There are three that you must know: decimal, binary, and hexadecimal.

Decimal is the standard numbeat you have used since grade school. You count 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, and then you reach 0 again, so you put down a 1 in the tens place and resume counting from 0.

Binary works the same way, except that there are only two digits, not ten. The two digits are 0 and 1. You count 0, then 1, then you reach 0 again, so you put down a 1 in the twos place and resume counting from 0. Thus, counting from 0 to ten in binary like this:

Decimal	Binary
0	0
1	1
2	10
3	11

4	100
5	101
6	110
7	111
8	1000
9	1001
10	1010

In binary, instead of having ones, tens, and hundreds places, we have ones, twos, fours and eights places. It takes a lot more digits to express a number in binary, but then again, we have only the two numerals 0 and 1 to work with, so what does one expect?

The hexadecimal number system is a base-16 system. In this system, you count from 0 to 16 like so 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, 10. The 10 in hexadecimal really means 16 in decimal. So 10 is 16, right? Black is white, truth is lies....stay with assembly language long enough and you'll believe anything.

Actually, it's easy to avoid confusion. We use little prefixes to tell you and the computer whether a number is expressed in decimal, binary, or hexadecimal. No prefix means decimal. A \$ prefix means hexadecimal; a % means binary. Thus %10 means 2 while \$10 means 16, but 10 means just plain old 10. Hexadecimal is not hard to learn at all; if you go into any store you will see that they use hexadecimal on all their signs.

#### ADDITION AND SUBTRACTION

Addition with the 6502 is very simple; it uses the ADC instruction. This instruction means "Add with Carry"; I'll get to the Carry part in just a moment. For now, let me explain the instruction. The ADC instruction has an operand, normally a location in memory. When the instruction is executed, it takes the contents of that memory location and adds that value to the value in the accumulator.



It leaves the sum of the two numbers in the accumulator. This of course destroys the old value in the accumulator. You can use the immediate mode of addressing with the ADC instruction, in which case it adds the value itself. Thus, "ADC # 9" will add a 9 to the contents of the accumulator, while "ADC FISH" will add the contents of address FISH to the accumulator.

Subtraction is just like addition. The instruction to use is SBC, which means "Subtract Borrowing Carry". Again, I'll tell you about the Carry part in a moment. This instruction subtracts the operand from the contents of the accumulator, leaving the result in the accumulator. It also can be done in either immediate mode (e.g. SBC#5) or absolute mode (e.g., SBC GOAT).

#### WORD LENGTH PROBLEMS

If that were all there were to arithmetic with the 6502, programmers would be paid a lot less. The first killer problem is that the 6502 uses 8-bit words; that is, the numbers that the 6502 stores and works with are only 8 bits wide. This means that the biggest number the 6502 can comprehend is 255. Uh-oh! What happens if you want to have a checkbook balancing program and you have more than \$255? What happens if you get more than 255 points in your "Decapitate the Orphans" game? In fact, what happens if you just ignore the limit and add, say, 10 to 250?

Well, believe it or not, the 6502 will give you an answer of 4. Why? The number system that the 6502 uses is like a wheel, with 0 at the top, counting clockwise 1, 2, 3, ... all the way up to 255, which lies right next to the 0. If you go up from 255 you just wrap around past the 0 and start all over. Similarly, if you subtract 2 from 0, you'll get 254.

The solution to all this is provided by the Carry bit, discussion of which I've been putting off until now. The

Carry bit is a flag that the 6502 uses to remember when it has done arithmetic that carried it over the boundary between 0 and 255. By using it properly, you can solve your arithmetic problems.

The first trick to using the Carry bit is to use multi-byte words. This means that, instead of using a single byte to store a number, you use several. For example, if you use two bytes to remember a number, you can store a number as large as 65,535; three bytes lets you go to 16,777,215; four bytes lets you go to 4,294,967,295. Big enough for you?

To use multi-byte arithmetic, you set up a series of additions or subtractions. Suppose, for example, that you want to add two two-byte words. The program fragment to do this would look like this:

```
LDA    LOFISH
CLC
ADC    LOGOAT
STA    LOANSR
LDA    HIFISH
ADC    HIGOAT
STA    HIANSR
```

This little fragment of code assumes that the first two-byte value is called (LOGOAT, HIGOAT), and that the two-byte answer is (LOANSR, HIANSR). The new instruction, CLC, stands for "Clear Carry" and it means that the Carry bit should be set to 0. It should always be used with all additions except chained additions like this one.

The code does the following: first it adds the two low values. If the addition resulted in a wraparound (result greater than 255), then the Carry bit was set; otherwise, it was cleared. Then it performed the second addition, adding in the value of the Carry bit (That's why we call it "Add with Carry"). Thus, if a wraparound occurred, an additional one was added into the high sum. This system insures that multi-byte addition works properly.

For subtraction, you use the SEC

instruction ("Set Carry"). Otherwise, you handle subtraction the same way that you handle addition. In both addition and subtraction, though, the low bytes must be handled first, then the higher bytes in the proper order (lower to higher).

#### DECIMAL & SIGNED ARITHMETIC

There are two variations on standard 6502 arithmetic. Both are so rarely used that I will not discuss them here in any detail.

The first is decimal arithmetic using the Decimal flag. This allows you to set up an automatic decimal adjust mode. This is useful in certain types of arithmetic, primarily BCD arithmetic.

If you don't know what this is, don't bother with the Decimal flag. Your program should always begin with the instruction CLD, which means "Clear Decimal Flag". I will tell you this just once: failure to clear the decimal flag is the source of the most frustrating and impossible-to-trace bug in the 6502. Every single program should start with the instruction CLD.

The second arcane bit of 6502 arithmetic is signed arithmetic. It uses the V flag ("oVerflow"). Signed arithmetic is always confusing and seldom useful. In 7 years of working with the 6502, I have never had need of it. Don't bother.

#### LIMITATIONS ON 6502 ARITHMETIC

There are quite a few limitations on 6502 arithmetic. There is no facility for multiplication and division; you have to write subroutines to do that. You must design your programs to make do with 8-bit words; failing in that, you must use multi-byte arithmetic, with its consequent price in speed and RAM. All in all, arithmetic is a real pain on the 6502. This is the major reason why most 6502 programs do so little arithmetic.

## QSS Guest Editorial

Where the New Software Will Come From

An Editorial by David Plotkin

---

It has become increasingly obvious that the production of new, useful software for the 8-bit Atari computers has slowed to a trickle, if not ceased altogether. By useful, I mean utility and productivity programs such as spreadsheets, databases, and other such programs which enable you to do substantive work on your Atari. This category does NOT include games, production of which has also slowed, although some new ones continue to be announced. This editorial will attempt to analyze why the software flow for the Atari home computers has reached the current state, and where any new software is going to have to come from.

The question of availability of new software is an important one. Sales of software tend to drive sales of hardware (computers), and so an important measure of the viability of a home or business computer is the flow of software. The classic example of this is the case of the Apple II and Visicalc. As the story goes, people actually went out and bought Apples (which, remember, sold for over \$2500 in those days) to have the machine that the spreadsheet Visicalc ran on. This maxim is still true today. The Amiga computer from Commodore is probably the most technologically advanced home computer available. Yet it languishes, and sales lag far behind the Atari ST and Apple MacIntosh. Reasons for this have been proposed in the literature which supports Commodore machines: the machine is too expensive, or it is marketed poorly. These are contributing factors,

no doubt. But I think there are a lot of people who would willingly pay the high price of the Amiga if there was something they could do with it. The real problem is that there is no software, and this situation doesn't appear ready to change in the near future. So software is the driving force behind computer sales -- as you have heard, without software, computers are just doorstops. Now, there is a lot of software available for the Atari. However, very little of it fits our definition of "useful". Also, human beings like new things -- witness the popularity of Christmas. It is very depressing to search the catalogs and shelves of the software stores for a new piece of software to take home and play with. As the months (and years) go by with little new software, owners have the tendency to give up and maybe even move to another machine which has a more active software producing community. At the very least, they may stop using their Atari regularly.

So -- there is not very much "useful" software available for your Atari, and little likelihood for the production of more. In contrast, the Apple II has a multitude of productivity programs, and new programs are constantly being announced. Yet, to hear tell, the Atari is a more advanced computer, possessing more sophisticated sound and graphics. Why the difference? Part of the answer has to do with history. The Apple computer was available about one and a half years before the Atari, and had a sizeable installed base when the Atari first appeared on the market. Despite the fact that it was VERY expensive, it was virtually the "only game in town". Software developers, encouraged actively by Apple, began writing programs quite early on. The historical reputation of Atari as the manufacturer of the 2600 game machine also hurt. I would guess that every Atari owner at some time has had to explain that his or her cherished computer is "not a toy!". Atari was the first of the computer makers to try mass-marketing techniques, making their computers available from places such as

K-Mart and Toys-R-Us. This alienated the computer stores, and also helped convince people that these computers were not to be taken seriously. Game software prevailed, and the soft voices of the people who realized that their Ataris could also do "serious" work were lost in the roar of explosions and sound effects.

Another part of the answer has to do with the technology. The Atari does support more advanced sound and graphics -- which unfortunately helps promote the image of it as a game machine. But the Apple is an "open" system -- that is, there is easy access to the system bus. Even today, Atari computers have no way to add hardware "cards". These cards can add a multitude of features that the basic system didn't have. Need more sound? Use a sound card, capable of 6 voices in stereo. Need more memory or 80 columns? Buy a card and add it in. You get the idea. The Apple computers had 128K of memory and 80 columns early on, and current cards can expand the Apple to 4 megabytes. Atari is just now beginning to catch up, with the announcement of additional memory and Atari's 80 column box. Thus, in the features which are important to productive uses of a computer, Apple has an almost insurmountable lead.

Finally, there is the question of the programming languages. Pascal, Fortran, a compiled BASIC and C were available very early for Apple owners. Atari owners had BASIC A+ (now BASIC XL and XE), but until the advent of ACTION, there was no fast, easy-to-use language for Atari programmers. This explains in large part why the programs in the Atari public domain are almost all written in BASIC, and a lot of them are pretty mediocre.

Where, then, does this leave us? We have the productivity series from Synapse (Synalc, Synfile+, etc.) as the primary productivity tools for the Atari, as well as some packages from other companies, some good, some not so good. Synapse no longer exists. Broderbund, Synapse's

parent company, does not appear to be actively supporting the series, even to correcting some of the nasty bugs which crept into the 130XE versions of the programs. And don't hold your breath for Broderbund to upgrade the programs to 80 columns. Most of the other major software houses, including some that have historically supported the Atari, seem to be also ignoring us.

So far, I seem to be painting a pretty grim picture. Let me put this in perspective. What I am saying is that there ARE programs for doing useful work on your Atari available. Many are quite powerful, and some are very cheap -- even to the cover price of a magazine and a few hours of typing. But I doubt that many of the older commercial programs will be updated for the new features of the Atari computers, and I also doubt that much effort will be put into publishing new programs. There ARE exceptions. XLEnt Software has their line of printer utilities, and just produced a new word processor. Its claim to fame is the ability to include "Typesetter" graphics in the text and use multiple fonts. Batteries Included has consistently been updating Paper Clip, which is the word processor I happen to be using for this article (*Me too!* - Ed.). And, of course, OSS has BASIC XE.

The most promising source of the new software necessary to keep the 8-bit Atari line alive is the users themselves. Very early on, Atari made an effort (APX: Atari Program Exchange) to market user-written software at good prices. Chris Crawford's classic, "Eastern Front", was first published this way, along with a multitude of other games and utilities, including the C programming language and a two-drive version of Pascal. I still use Sheldon Leemon's Instedit, a character set editor, and play "Caverns of Mars" on occasion. APX did encourage programmers to get working and made these programs available for very little money. But APX was a victim of the Atari upheaval, and is no more. ANTIC Magazine now publishes a catalog of

some of the old APX line, and includes some new material as well. Unfortunately, the prices have gone up, and the standards for acceptance of programs are very stiff. Provided a suitable way to distribute programs can be found, however, the users are still the best source of new software. This is especially true of the people reading this editorial -- the customers of OSS. You are the people who take programming seriously. You must: you laid out quite a lot of your hard-earned dollars to purchase OSS's products. In general, these products are programming languages. MAC65 is quite likely the best assembler ever published for an eight-bit computer. It is quite possible to produce very good software using BASIC XL, BASIC XE, and ACTION!. Many of you have seen my ACTION! games in ANTIC and ANALOG, and my commercial "MINIATURE GOLF PLUS", available from XLENT Software, which was written in BASIC XL! With runtime packages available for both BASIC XL and ACTION!, they are prime candidates for programming new software.

The question then remains: if you have written a good utility or productivity program, how do you get it out there and maybe even make a little money from it? OSS will be announcing the details of a new software line, entitled "BareWare" (racy, huh?). Its primary purpose will be to make new software, primarily written by OSS customers, available to others at a reasonable price. (*BareWare article immediately follows this one - Ed.*)

We have analyzed how the state of Atari software has gotten to where it is now, and looked at some hopes for the future. I firmly believe that the majority of useful software will come from all of you out there. You have the tools -- the excellent programming languages and utilities from OSS (and others). And OSS will provide the distribution. It is time for all of you (and me) to get busy and begin turning the software ideas that have been bouncing around our brains for a while

into reality. The Atari community is depending on us, and OSS can't do it all alone.

#### What is BareWare?

We feel that there is still a demand for high-quality, reasonably priced software for the Atari computers, both 8 and 16 bit. By reasonably priced, I mean under \$30. So what's the problem? Support!

While we understand the need for continued high-quality support for our products, we cannot profitably market software for under \$40 and still provide our normal level of support. So -- what's a company like OSS to do?

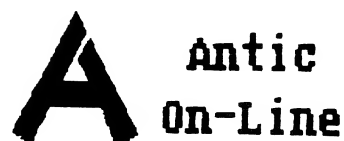
Well, we could just charge \$35-\$50 for these programs, but that just wouldn't be right!

Why not sell the software at a minimal cost, just enough to cover advertising and materials, and the royalty to the programmer? How about offering no telephone support on those products? That way we aren't "adding in" a fee for support when the product is purchased. People who don't need or want the support (there are a lot of those!) aren't penalized up front!

This is why we started BareWare. BareWare is a new way for us to market software. BareWare will bring to market all those programs that people would love to have but can't justify paying the high prices for them.

As of this writing, we are still putting the finishing touches on BareWare products for the 8 bit line, including an ACTION! Graphics ToolKit! In the meantime, if you are (or anyone you know is) working on a great piece of software that you think others would love to use,

let us know! Don't be shy! We have only a few rules for BareWare products: Programs must be bug-free, well documented, and they must be a good solution to a problem. We are happy to review any and all programs which fit these qualities.



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#### HOW TO HOST A HIT ATARIFEST!

NOVATARI & GRACE Made Money  
Your Group Can Do It Too!

By Gigi Bisson,  
Antic Assistant Editor

When NOVATARI, WACE and Current Notes of the Northern Virginia/Washington, D.C. area hosted an AtariFest this month, they had no idea that 2,000 people would attend in a single day.

"It was far more successful than anybody would have ever imagined possible," NOVATARI president and WUN chairman Joe Waters says. NOVATARI made \$400 profit and boosted their membership by 10%.

Instead of risking a loss by renting a hotel for their AtariFest, they had the show in a high school cafeteria. The space was free for the asking under one condition, the school district would not allow NOVATARI to charge fees for admission or for sellers booths. As it turned out, free admissions contributed substantially to the success of the fest.

Atari Corp. donated Atari T-shirts, buttons, pens and pins for give-aways and

NOVATARI purchased an 800XL computer to give away as grand door-prize. The show's highlight was the East Coast unveiling of several new Atari products including AtariWriter+, Home Planetarium, Silent Butler and the PLATO Learning Phone Cartridge.

The auditorium was divided into sections. There was a productivity corner with three or four computers showing word processing and spreadsheets, a music corner, a wargames booth with Current Notes' resident strategic expert demonstrating the new SSI games, a telecommunications table, an ST special interest group, a computer language table where users could ask questions, and booths representing 10 local Atari stores.

"The dealers that didn't come were kicking themselves later," Waters says. "People were ready to buy."

Although NOVATARI/Current Notes, with over 1,000 members, is one of the largest user groups, smaller groups can also host a fair if they band together and cooperate.

Greenville Atari Computer Enthusiasts (GRACE) of Greenville, SC hosted a ComputerFest this month that attracted over 400 Atari enthusiasts from five users groups in the Carolinas area and drew visitors from as far away as Atlanta, GA. The festivities included flea market tables, retail booth vendors, informative seminars and loads of door prizes donated by Atari Corp. In a previous ComputerFest the groups barely broke even. But this year each of the five sponsoring users groups went away with \$300 in profits from sales of library software disks and raffle tickets.

#### PULLING IT OFF

Terry White and Georgia Weatherhead of NOVATARI organized 60 volunteers, and got the word out by sending press releases to local papers and posting

announcements on Atari bulletin boards and Compuserve.

"The key to success is to make the event free and link up with a school so there's not a lot of financial risk," says Waters. He plans to make the D.C.-area AtariFest a twice-yearly event from now on.

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#### TELECOMMUNICATIONS TIPS: AN ANTIC ONLINE I/O SPECIAL

Antic's staff answers frequently asked questions about telecommunications.

By Gigi Bisson and Charlie Jackson  
of the ANTIC Editorial Staff

#### BAUD vs. BPS

Q: I seem to remember a discussion on the difference between baud and BPS when referring to modems. Which issue was it in? Are these terms interchangeable, or are they different measures completely?

ANTIC: They are essentially the same. BAUD is a unit of signal speed used in communications, usually bits per second (BPS). Transmission at 300 BAUD is roughly equivalent to 300 characters per minute. The term is derived from the last name of J.M.E. Baudot, a nineteenth century Frenchman who developed the Baudot code for telegraph transmission. This was covered in the August 1985 Antic, page 12.

#### PLAYING WITH PLATO

Q: Those of us who are trying to use the Plato learning phone system could use a few hints in print, rather than spending a lot of time online trying to

learn how to use the system effectively. How about a tutorial?

ANTIC: Check out the July, 1984 issue of Antic or Valency Harm's review of the Plato Learning Phone cartridge in the April, 1986 issue. You'll find more information about Plato in the upcoming August, 1986 Telecommunications issue.

#### HOMETERM TROUBLES

Q: I am pleased with my XM-301 modem and its terminal software, but am having difficulty using Batteries Included's Hometerm -- specifically getting the macros to work. The modem does not appear to recognize the commands. The screen turns green momentarily to indicate an active macro, but then halts.

ANTIC: We suggest that you call or write Batteries Included technical support at: 30 Mural St., Richmond Hill, Ontario L4S 1B5, Canada, (416) 881-9941.

#### SUPRA BLUES

Q: I own an MPP (pre-Supra) 1000-C modem but to be frank, I think the terminal software stinks! Can you suggest 1) new software or 2) software online for me to download and use?

ANTIC: Go to the Atari 8-bit SIG on CompuServe, type BRO/KEY MPP and download MSCOPE, (listed as MSCOPE.XMO) the MPP version of TSCOPE for MPP modems. It's also available from the Antic Catalog for \$10. A version of AMODEM for MPP modems can be found online under AMOMPP.XMO.

#### BBS QUEST

Q: I have just purchased an Atari 1030 modem and was wondering where I can find a list of BBS's and modem users that I can get in touch with. I also would like to know where I can get a program to make my own BBS. I have many games, utilities and demos I want to share with people.

ANTIC: We reprinted a downloaded list

of BBS's in the August 1985 issue, and boy, what a headache that was. Just one minor typographical error in a phone number meant that somewhere, some sweet little old lady was getting thousands of mysterious late-night calls from modem owners. She heard this strange tone -- and every caller hung up! You can understand why Antic is cautious about publishing BBS numbers unless we're positive about their accuracy.

Try looking in your local computer magazine, if you have one in Texas. In California, a magazine called Computer Currents publishes a monthly list of local BBS's. For starters you could call "The Gate" BBS. Bennett Hamilton, music director of KPEP radio station in Gatesville, Texas runs the BBS dedicated to country music information on his Atari 130XE. Dial (817) 865-5259 from 6 pm to 6 am, seven days a week.

As for a do-it-yourself BBS program, we know of only one commercially available for the Atari, Bulletin Board Construction Set, an Antic catalog product. Many BBS sysops write their own BBS programs. Matt Arington runs the 300 baud Madrona Marsh BBS (213) 212-6414 in Torrance, CA with a program he wrote himself.

#### TOUGH CHOICES

Q: I am in the market to buy a modem and have narrowed my choices to the Atari 1030, Supra 1000E and XM301. Which best suits an intermediate programmer who would use it with online services and maybe eventually start a BBS? Can any of these communicate with an Apple IIc or IIe?

ANTIC: According to the responses Antic got when we visited the BAUG Atari users group and asked them to pick their favorite modems, they ranked the Atari XM301, the Atari 1030 and the Supra 1000E in that order. The Atari modems came out on top basically because of their low prices. To run a BBS on the 1030, however, you'll need a ring detector.

The Supra and XM301 both have this feature built-in.

You can't use any of these modems with an Apple computer, as they are direct-connect modems specifically tailored to the Atari.

A non-direct-connect (external) modem such as the Hayes or a Hayes-compatible like the Anchor Automation Volksmodem will work with both Apples and Ataris. You'll need an 850 interface to make the Hayes modem work with an Atari computer. The Apple II requires a Db-25 serial port connector and a serial card such as the Alpha Bits. The Apple IIc has a built-in serial port.

#### KERMIT AIN'T A FROG

Q: What is Kermit Terminal Emulator (I've seen this in Antic's Catalog) and how is it used? Will it enable me to receive software designed for other computer systems?

ANTIC: The PD038 version of Kermit is pretty limited. Chamelon CRT terminal emulator (AP113) is a much more flexible and powerful Kermit.

Kermit, which is actually named after Sesame Street's Kermit the Frog puppet, is a file transfer protocol that monitors the flow of information between computers. The first Kermit implementation, developed at Columbia University in 1981, linked a DEC-20 mainframe to a CP/M-80 microcomputer. With Kermit, you can download software designed for other computers, but you won't be able to run it on your Atari. For more about Kermit, see Charlie Jackson's article in the August, 1985 Antic, page 25.

#### VIDTEX CAPTURE

Q: In your July issue of Antic your Vidtex Converter article mentions high resolution VIDTEX graphics on CompuServe. However, I can't find any command to open a capture buffer with Tscope, only

download and upload...

ANTIC: Tscope doesn't have a capture buffer. Download a copy of Express from the Atari 8-bit SIG (GO ATARI 8) instead. You'll find a Tscope-compatible download listed as "XFRS21.BIN". To find the CompuServe VIDTEX graphics, just type FIND PIC at any ! prompt.

#### RAMDISK MYSTERY

When the technical whizzes at Antic installed a RAMdisk in our 1040ST, something started to happen. The RAMdisk wanted to be Drive D:. And the first time we booted-up the 1040ST, the RAMdisk was indeed, Drive D:.

But, while testing other software, we experienced a crash. When we re-booted the 1040ST the RAMdisk demanded to be Drive E:. No problem, we thought, just re-boot. Then, the RAMdisk wanted to be Drive F:.

Each time we re-booted, the drive letter advanced by one. Finally we let the 1040ST sit for a few minutes while we discussed the problem and then booted once again. The RAMdisk was back at Drive D:.

After a telephone call to Atari Corp. engineers, we decided the power supply built into the 1040ST is pretty hefty, meaning it has a lot of power in reserve. When we turned the 1040ST off, it was taking 10-15 seconds for the power to drop down to a level which would allow the RAM to forget which drive the RAMdisk wanted to use.

The answer? If you experience a problem like the one described above, let the 1040ST sit for up to 15 seconds between boot-ups. Like an elephant, the 1040ST tries hard to remember.





## Notes From All Over

Since I am a very devoted PaperClip fan, and I also have a Rambo XL modification inside my 800 XL, I was very interested in these messages on CompuServe. I thought someone else might be as well, so am publishing them here. - Ed.

#: 171766 S5/Application pgms  
14-Oct-86 23:08:30  
Sb: #171750-#PC WITH THE RAMBO XL  
Fm: Dan Moore 74035,243  
To: Warren Lieuallen 73177,1502

The current version (2.0) of PC will work with the Rambo Mod. It gives you 112K of text RAM and also loads the spell dictionary into RAM for faster spell checks. It will also work with some 256K and 320K upgrades for XL and XEs (It depends on exactly how they handle the extra banks. Some methods PC won't recognize as is. (There is a table in the program that can be modified to make it work on other bank switching systems. If you're interested I can tell you where it is.)).

There will be a new version if/when Atari ships their 80 column card (I can't wait! - Ed.). But it won't have any change in the support of machines with more than 128K.

Dan

#: 171917 S5/Application pgms  
17-Oct-86 01:09:51  
Sb: #171766-#PC WITH THE RAMBO XL  
Fm: Bob Woolley 75126,3446  
To: Dan Moore 74035,243

Dan: I'd like to know where it (the table) is, if you don't mind. Also, I can't get the Dictionary to load at high

speed since you turn the ROM on and off, and the high speed code is in RAM. Can you tell me where the Dictionary sectors go so I can maybe load them myself? And how to flag them as present in RAM? And, how can you load the Dictionary and still have 112K of text? And....

Bob Woolley

#: 171933 S5/Application pgms  
17-Oct-86 12:50:16  
Sb: #171917-#PC WITH THE RAMBO XL  
Fm: Dan Moore 74035,243  
To: Bob Woolley 75126,3446

The bank control table loads at address \$1501 (It should be in about the 25th sector of the file. Sector one of the file loads at \$880.). The table is 17 bytes long. Basically, just shove the bank control numbers for the PIA into it (Be sure to disable the OS in the control numbers.). The first 2 entries must be the same and should be the "normal" default bank. PC reads through the table and checks each potential bank until it finds a duplicate (2 entries give same bank). That gives it the RAM size of the machine (Note this limits PC to 15 banks (I know there are 17 entries, the last is really a filler and can be ignored.)).

PC uses the last 6 banks (if there are 11 or more) to store the dictionary (last 6 in the table, that is). On a 256K machine there are 13 banks so 7 banks are available for text (112K).

I really don't know where the flag byte for "dictionary loaded" is (I don't have a listing of 2.0. Last one I have is 1.2 and it took 5 hours to print.). I believe it is in low mem (\$300-\$6FF), but I won't swear to it. If it is you couldn't set it anyway since PC clears it's low mem area during startup. I also think there is a flag in the Spell Pack code (Stan Kistler wrote that so I'm not to up on exactly what his flags are). Spell Pack loads under the OS so I don't think you could set his flag either.

Dan



## OmniView 80 Chip Update

Among other things, I own an OmniView 80 chip, which is a replacement OS chip for the eight-bit Atari computers. This chip features a built-in 80 column screen, which is quite readable, even on a color TV (the worst possible display device for fine resolution). I also have a Rambo XL 256K memory upgrade.

While reading an issue of ANALOG magazine, I came across an ad from the company which makes the OmniView 80 chip. It featured a write-up on the new OmniWriter 80 word processor to complement the chip. I apparently had an older version, because my chip came with an 80 column version of SpeedScript (not bad, but....). The ad also mentioned a new version of the OmniView 80 chip to work with the 256K mods. Needless to say, I was very interested. So, I wrote a letter to CDY Consulting, asking about possible upgrades for my chip and program. I received an answer on October 31, and would like to share it with you. Reprinted here are both my original letter, and the answer.

1652 Hess Boulevard  
Columbus, OH 43212  
August 23, 1986

CDY Consulting  
421 Hanbee  
Richardson, TX 75080

Dear Sirs,

I recently purchased an OmniView XL/XE chip (the number printed on the face is xxxxxxxxxxx-xx), and subsequently saw an advertisement in the August, 1986 issue of ANALOG magazine for this product.

The ad mentioned the OmniWriter 80

column word processor by Dave Young. My chip however came with an 80 column version of SpeedScript (also by Dave Young). Although I have no real complaints with SpeedScript 80, the description of OmniWriter leads me to believe that it is a more powerful word processor. How can I obtain a copy of OmniWriter? I would be more than happy to send you a blank disk for this purpose.

In addition, your ad specifically stated that the OmniView XL/XE will work with the 130 XE version of AtariWriter (AtariWriter Plus?). However, on page three of the documentation which accompanied my OmniView, it specifically states that the 80 column feature will not work with AtariWriter. Which statement is correct? I have not checked, because I do not currently have the OmniView installed in my 800 XL (which has been modified to a 130 XE compatible with 256K RAM), because my OS chip is soldered in place, which will require piggybacking the two together. While I did install the 256K mod. myself, I feel my soldering skills are a little shaky for this operation. Furthermore, my current word processor is PaperClip (revision 1.2X), and the OmniView not only does not support this program, it somehow cuts the available memory in half, or more!

There now appears to be a version of Omniview to work with the 256K RAM upgrades. Does this work only with your upgrade, or will any of the 256K modifications be compatible (I have the Rambo XL installed in my 800 XL.)?

I am currently the vice president of my local users' group (the Atari Computer Enthusiasts of Columbus), and am quite active in writing product reviews for our newsletter, based on the products I have recieved from their manufacturers. In the last year, I have written reviews of BASIC XL, PaperClip versions 1.0, 1.1, 1.2 and 1.2X, The Writer's Tool, the Rambo XL 256K memory upgrade, and the Star SG-10 printer, among others (copies can be forwarded upon request). I have even written a comparison Omniview and

SpeedScript 80 with several of the software driven 80 column devices for the Atari, such as Text 80 and Video 80. If a review copy of the Omniview 256 chip could be sent to me, I would be happy to write a review of this newer Omniview chip, and OmniWriter itself once I have become familiar with them (my reviews are usually published three to four weeks after I receive the product). It seems to me that such a review would be quite beneficial to you, as I am certain that your products are much easier to use and more versatile than a simple software emulation, and I commonly receive questions about 80 column devices for the Atari. As Atari has recently announced the release of its own 80 column device, the Omniview review would be quite timely as well.

Aside from the review copy of Omniview 256 and OmniWriter, I would appreciate any information which might clarify the discrepancies I mentioned, as well as any thoughts on the interactions with PaperClip 1.2X. Thank you very much for your time.

-----  
The reply I received is printed on this page (reduced photocopy of the actual letter).

First of all, it may interest you to know that these upgrades are available, in addition to the new OmniCom for only \$10.00. However, I was a bit annoyed at the tone of this letter. I specifically did not purchase the Newell 256KXL, because I was told it was not XE compatible (which, apparently, was wrong). I have no complaints with the Rambo XL, and have found it to be compatible with every 130 XE version program I have tried (PaperClip, AtariWriter Plus, SynFile, CopyMate, etc.). I certainly do not consider it to be an "inferior product". I believe there is some connection between CDY and Newell (they may be the same company for all I know), and I think this is a pretty shabby way to advertise.

Secondly, I take offense at the claim

that the memory conflicts with PaperClip are due to "stupid programming in PaperClip". Since the Omniview chip was supposed to be designed to allow the use of the 80 column screen with as many programs as possible, I should think that if there were any "stupid programming", it would lie within the chip, and not PaperClip. While I do not understand it, the memory conflict I mentioned in my letter certainly do exist, and as PaperClip otherwise performs flawlessly, I assume the chip is the culprit. I do not expect the Omniview to work perfectly with every program on the shelf -- that would certainly be a programming impossibility. However, I would have appreciated an honest explanation, or even an honest "I don't know" much more than the insulting condemnation of a competitor.



CDY Consulting  
4201 Glenboa  
Richardson, TX 75080  
(214) 233-2046



October 4, 1986

11:44 AM

Dear Sir,

Thank you for your letter. I will do my best to answer your questions.

But first, in case you don't know, AtariWriter Plus (130XE version) has been converted to 80 columns. If you wish to get this 80 column version, send a copy of the 130XE side of the AtariWriter disk (it does not have to be a working copy) or the original plus a blank disk plus \$10.00 and we will send it back working in 80 columns. You must have a 130XE compatible machine for this version to work. In particular, it will not work in a 800XL with a Rambo 256K upgrade. It will work in an 800XL with the Newell 256KXL.

Also OmniCom is now available! This VT100/Kermit/XMODEM package is the most sophisticated communications program available for the ATARI 8 bit computers. The cost of it is \$10.00.

In answer to your questions:

Enclosed you will find the latest version of OmniWriter for your review. As the OMNIVIEW 256 ramdisk handlers will not work well with your Rambo XL I have not included the OMNIVIEW 256 chip.

The OMNIVIEW does not do anything to cut the memory available to PaperClip in half! This is only due to stupid programming in PaperClip.

The OmniWriter will work with the Rambo XL but because it is an inferior product that does not support the 130XE modes of the ANTIC chip, you will not be able to run AtariWriter Plus with it in 80 columns. I would suggest getting the 256KXL less memory (\$39.95) if you have this need.

Sincerely,  
David Young



# The President's Print-Out

GOODBYE TO ALL THAT...

by Sheldon Wesson

I am very pleased to have this opportunity to present my thoughts about the ACEC as the newly-elected officers take responsibility for running our organization. Nothing became my office so well as my leaving it... a complicated way of saying that I leave the club in good hands, that the new officers are truly fanatical enthusiasts who will serve the membership very well indeed.

Atari Corp. was very busy doing one stupid thing after another when I first joined the club. We all watched while the most successful business in recent history dissolved in chaos. ACEC membership grew like a weed during this time... Atari built a great machine, even if the towel merchants who ran the company knew not what they did...and the club flourished.

Ironically, the smashing success of New Atari poses problems to the solidarity of user groups such as the ACEC, and indeed, the entire Atari community. The 8-bit and 16-bit machines live in different worlds: only the logo is the same. This causes the same kind of technical and emotional factionalism among Atari enthusiasts that divides users of different brands of computers. The majority of ST purchases are made by people who have never owned a computer before, an unexpected trend that makes matters worse.

Why should new ST users care about the ACEC? Why should dyed-in-the-wool 8-bit users subsidize the enthusiasts of a new and alien machine? Shouldn't we split into two groups, each dedicated to its own interests? My feeling is that these challenges to our solidarity are opportunities in disguise: that the groups can accomplish more under one leadership than is possible separately, that the older group needs to invest in the new one for its own benefit, and that combined participation will provide better value to all ACEC members. I want to explain how I came to this conclusion, then suggest some changes in club operation that would take better advantage of these developments.

Anyone who reads ANTIC or ANALOG has noticed that both magazines have nearly doubled in size since the ST arrived upon the scene. They have found a whole new market and a new gaggle of advertisers to fatten their coffers. Our purpose in the ACEC isn't to make money, but the opportunity is similar: to scoop in a whole new group of users, and create new areas of interest to explore.

The latter point is the main reason for 8-bit users to sponsor ST-related activities. The 8-bit machines will be commercially viable for quite a while, but the future is with the new computers. The ST group will eventually surpass its parent in size and activity, and will have to subsidize its parent as commercial support for the old machine dwindles. The 8-bit group has to invest in the future, so to speak, to ensure that interest in its computer doesn't die when it becomes commercially obsolete.

How does each group benefit from the other's participation in the same club? Mostly from the crossover of experienced 8-bit users into ST activities. An experienced 8-bit user is likely to stay interested in the old machine after buying an ST. This keeps the technically advanced members around to help new users in both groups. Also, limiting the bureaucracy to one set of officers gets the background work done in the most economical fashion, leaving more time and energy for the information exchange that is the real purpose of our organization.

Our cadre of officers has to expand a bit, and responsibilities have to be distributed more equitably. The 8-bit and ST groups should have equal status, each having a vice-president, disk librarian and publication librarian. The president, treasurer, secretary, membership chairman and newsletter editor should support both groups equally and provide the unifying spirit that gets the most done with the least effort. Let me illustrate how this would work by describing the changes in function of some of the officers.

The practical definition of the president's job is program chairman, since it is the president's responsibility to put on the show every month. Since the show would consist of two meetings, the president would attend both, deliver the welcome and introductory remarks, then turn-over the meeting to the respective vice-president. The president would thus symbolize the unified spirit of the ACEC to both groups. The increased responsibility of running two meetings would be alleviated by delegating the details of the program to the vice-presidents. This arrangement would also give the president more time to dream up grand ideas and implement new policies.

Each group should be represented by its own vice-president, whose role would be of much greater importance than it is now. The vice-president would be in charge of lining up speakers and presentations, and then conducting the monthly meetings. I am sure that Dave Beck, our new vice-president, would perform these functions for the 8-bit group most admirably. I recommend that Larry Mendel be appointed vice-president of the ST group, for which he has worked with great energy.

I also recommend that Scott Wade be appointed ST disk librarian, if he can be persuaded to undertake this important task. The price of an ST DOM should be increased from \$2 to \$3 to diminish the subsidy from the 8-bit group, and a surcharge should be imposed on sales to non-members [I also believe that the 8-bit DOM should be priced lower, reflecting cheaper production costs now that disks cost 30 cents each, instead of \$1.50.] We should always keep in mind that the purpose of both DOMS is to provide as much software to the membership as cheaply as possible, and only secondarily to make money for the club.

The treasurer would take in funds from the membership chairman and the disk librarians, and reimburse officers for operating expenses at the monthly officer meeting. The treasurer would also be responsible for publishing a complete report on club finances in the newsletter every month.

The secretary would have the responsibility each month of getting current membership list from the membership chairman, obtaining the meeting times and dates for both groups from the vice-presidents, and mailing a flyer to each member announcing the upcoming meetings and their topics. [Meeting times would also appear in the newsletter, but the flyer would be sent out at the last minute in order to announce any changes in schedule.]

The club should continue to publish one newsletter containing articles of interest to both groups, and to the club as a whole. The contents of the newsletter would thus reflect unity and cooperation among the different factions of our organization.

The club would maintain one membership list for distribution of newsletters and flyers. The membership chairman would collect dues at one or both group meetings. The vice-presidents would forward funds from meetings that the membership chairman did not attend.

The ST is still so new that not many publications support it directly. The ST publications librarian could be appointed or voted in when the need for this position becomes apparent.

I hope that the membership will find some of these suggestions useful, and will amend the present constitution to allow the club bureaucracy to expand and to redistribute the responsibilities of running ACEC. I think that these changes will end the "rivalry" between aficionados of 8-bit and ST machines, and allow the club to take better advantage of the benefits of a larger membership.

For my part, it seems that I must seek new employment out of state, and I will be unable to participate in club activities after December 1986. This also means that the Dr.Download, the BBS for Callers of Good Taste and Erudition, will have to shut down and relocate. It will go offline sometime in December, and reappear in early spring. The new number will be announced in the 8-bit and ST sections of CompuServe and GENie, and on the ACEC BBS. Meanwhile, thanks to all of you for the good times we've had together, and goodbye.

# Atari Telecommunications

Everything You Ever Wanted to Know  
About the ACEC BBS, But Were Afraid  
to Ask!

by Frank Seipel

The ACEC BBS[614]-268-0405 is the  
ACEC users' group BBS. If you have  
a modem or are interested in tele-  
communications then read on!

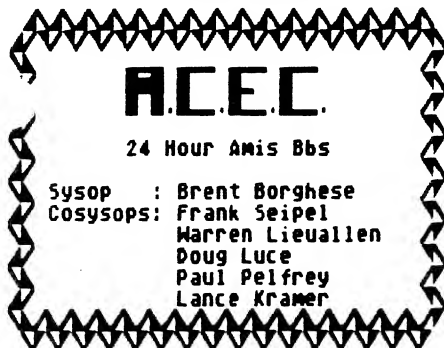
If something is in inverse video, it  
means it was typed by the caller.  
[CR] is short for carriage return  
and means that the caller pressed  
his/her "Return" key.

Once you call ACEC BBS, here's what  
happens....

Connected!

Welcome to ACEC

Please hit (Return) [CR]



51 Messages

High Message:992

Last Caller:THE NINJA

Enter your Name >Frank Seipel[CR]  
From City,State >Gahanna, Ohio[CR]

You are Frank Seipel  
Calling from Gahanna, Ohio  
Correct (Y/N)Yes

You are caller 23991

Saving your name to disk.

AS=Pause, Any Key=Resume, AX=Abort

ACEC BULLETINS  
09/27/86

Things have been running unusual-  
ly smoothly on the board for quite  
some time now (not that I'm compli-  
menting, mind you!). The message  
base is now one of the most popular

in Columbus (although it seems that  
every board I log on to claims to be  
the best in Columbus!). And with  
our recent change of downloads, I  
think we should all be pretty comf-  
ortable for the next few months.

The most important matter to  
bring to your attention is the  
elections of the new ACEC officers,  
which will take place at the next  
regular ACEC meeting (October 13th,  
at 7:15 p.m., at DeSales High on  
Karl Road). The club, and the  
nominees really need your support,  
and we would very much appreciate  
both your attendance and your votes  
at this meeting. Nominations will  
again be accepted before the voting  
takes place. At the last meeting,  
the following nominations were  
accepted:

PRESIDENT: Charles Lusco

VICE-PRESIDENT: Dave Beck  
Charles Brown

DISK LIBRARIAN: Paul Pelfrey

NEWSLETTER: Warren Lieuallen

PUBLICATIONS: Bill Morgens

TREASURER: Bill Eckert

MEMBERSHIP: Scott Spears

SECRETARY: Don Bowlin

Be warned that I take no respon-  
sibility for the correctness of the  
above list -- that's how I remember  
it, but I'm a little shaky about  
the last two or three!

We have received several new  
uploads in the past few weeks.  
First of all, to those of you who  
have uploaded material to this  
board, thank you! To those of you  
who have not, why not? Nearly  
everyone has come across a nice  
public domain program to do some  
task or another, or has their own  
favorite piece of art work or music.  
If you like it, others will too.  
So, share the wealth. Send that  
program up to ACEC, and let  
everyone else see what they've  
been missing. It doesn't take  
very long, it's easy, and best of  
all, it's free! So, come on!

The other co-sysops and I hope  
you enjoy your stay on the ACEC  
BBS. If you have any questions or  
comments, feel free to leave them  
at log-off, or just leave me a  
message. Thanks.

Warren Lieuallen

ABCEGHIJKLMOQRSTUVWXYZ,x,Dx [x=1-3],+  
or ? >[CR]  
Select menu mode:

- 1.Beginner (Full menu)
- 2.Intermediate (first letter, w/  
commas)
- 3.Normal (first letter, no commas)
- 4.Expert ( ) )

Select:2

A,B,C,E,G,H,I,J,K,L,M,O,Q,R,S,T,U,  
W,X,Y,Z,x,Dx [x=1-3],+,or ? >[CR]  
23991 Callers  
First Date:10/14/86 - Last Date:  
10/16/86  
ENTER Starting Date (MM/DD/YY)  
10/16/86[CR]  
Searching Callers...  
AS=Pause, Any Key=Resume, AX=Abort

(abbreviated listing)

Caller: DR.DOO  
From: COLS.ON.  
At: 15:16:17 On: 10/16/86

Caller: SANDY STRANSKI  
From: COLUMBUS, OHIO  
At: 15:25:37 On: 10/16/86

Caller: THE NINJA  
From: WEST JEFF, OHIO  
At: 15:34:09 On: 10/16/86

Caller: Frank Seipel  
From: Gahanna, Ohio  
At: 15:41:50 On: 10/16/86

A,B,C,E,G,H,I,J,K,L,M,O,Q,R,S,T,U,  
W,X,Y,Z,x,Dx [x=1-3],+,or ? >[CR]

Quick Scan Messages  
51 Messages  
AS=Pause, Any Key=Resume, AX=Abort  
AN=Next Mesg  
First Msg# 942 Last Msg# 992  
Return=Exit, Msg# From-To )  
980-992[CR]

980. HELP  
981. DISK # 49  
982. BBS  
983. wanted!!  
984. "Great" boards  
985. NEWSLETTER NAME  
986. HELLO!  
987. WANTED!!  
988. D&D BOOKS  
989. DOS.3.08  
990. FOR SALE!  
991. STILL LOOKIN' 4 P.S. FILES  
992. Disks by Mail revisited...

Return=Exit, Msg# From-To >[CR]

A,B,C,E,G,H,I,J,K,L,M,O,Q,R,S,T,U,  
W,X,Y,Z,x,Dx [x=1-3],+,or ? >  
R:943:978:990[CR]

Retrieve Messages  
51 Messages  
AS=Pause, Any Key=Resume, AX=Abort  
AN=Next Mesg  
First Msg# 942 Last Msg# 992

MSG# 0943 Date:10/11/86 Time:11:28:45  
FROM: Warren Lieuallen  
TO: All  
SUBJ: OILING THE 1050

As far as using any particular  
goop to oil the rods in the 1050,  
I used some generic vaseline jelly,  
and it's worked fine. No need to  
spend any money on the thing!  
Just open up your drive, and  
slide the head back and forth  
(without touching it!). Then oil  
all the moving parts. You're  
done!

MSG# 0978 Date:10/14/86 Time:18:09:51  
FROM: THE NINJA  
TO: All  
SUBJ: WANTED!//FOR SALE!  
WANTED!!!/FOR SALE

WANTED!! MYDOS 3.88!!!  
FOR SALE....1030 MODEM....

MSG# 0990 Date:10/15/86 Time:22:42:56  
FROM: THE NINJA  
TO: All  
SUBJ: FOR SALE!  
FOR SALE!!

TANDY PC-4 POCKET COMPUTER WITH  
PC-4 CASSETTE INTERFACE, BOTH  
BRAND NEW..1 MONTH OLD...

\$100.00 OR TRADE(ATARI EQUIP) READ  
MESSAGE 985...

>>>-TN-

Return=Exit, Msg# From-To >[CR]

A,B,C,E,G,H,I,J,K,L,M,O,Q,R,S,T,U,  
W,X,Y,Z,x,Dx [x=1-31,+ ,or ? >[CR]  
AS=Pause, Any Key=Resume, ^X=Abort

Filename	Sec	Type	Lang
Russian	0025	Demo	Bas
Gantlet	0116	Game	Obj
0052 Free DD Sectors			

A,B,C,E,G,H,I,J,K,L,M,O,Q,R,S,T,U,  
W,X,Y,Z,x,Dx [x=1-31,+ ,or ? >[CR]  
AS=Pause, Any Key=Resume, ^X=Abort

Filename	Sec	Type	Lang
Smartmpp	0025	Tele	Obj
Ringdoc	0010	Text	Txt
Expres21	0130	Tele	Obj
E21docs	0017	Text	Txt
Expri030	0114	Tele	Obj
E1030doc	0071	Text	Txt
Amodem70	0094	Tele	Bas
Amo25x1	0074	Tele	Bas
Amoaut	0002	Tele	Obj
Amompp	0058	Tele	Obj
Suprterm	0017	Text	Txt
Stermat	0009	Tele	Obj
Suptrm	0041	Tele	Bas
Diskxfer	0029	Tele	Bas
Tscope	0043	Tele	Obj
Tscpdcs	0036	Text	Txt
Aiebbs	0105	Tele	Obj
Aiefmk	0020	Tele	Obj
Expr850	0122	Tele	Obj
Xp21rtim	0135	Tele	Obj
Startmpp	0003	Tele	Obj
Xp21rdoc	0008	Text	Txt
Xe576kmd	0033	Text	Txt
Ringtek	0013	Text	Txt
Patchdoc	0008	Text	Txt
0211 Free DD Sectors			

A,B,C,E,G,H,I,J,K,L,M,O,Q,R,S,T,U,  
W,X,Y,Z,x,Dx [x=1-31,+ ,or ? >[CR]  
AS=Pause, Any Key=Resume, ^X=Abort

Filename	Sec	Type	Lang
E850v3	0128	Tele	Obj
Exv3docs	0076	Text	Txt
Expcnvt	0016	Tele	Obj
Pcpurs	0091	Text	Txt
Witching	0027	Game	Bas

Spacedod 0023 Game Bas  
1067 Free DD Sectors

A,B,C,E,G,H,I,J,K,L,M,O,Q,R,S,T,U,W,X

Current:9/27/86 Next Update:10/18/86

The next meeting of the Atari Computer Enthusiasts of Columbus will be Monday, October 13th, at 7:15 p.m. As always, the meeting will be held at DeSales High School, which is located on Karl Road, just south of Morse Road. Please refer to the map below (NOT drawn to scale!) if you are unfamiliar with the area.

This month's meeting will deal with discussions on the fascinating hobby of Astronomy, and how an Atari computer can be interfaced into a home astronomy station. As a less common use of the Atari computer, this should prove to be a very interesting lecture and demonstration.

Don't Miss the Raffle--another 1050 Disk Drive goes to the lucky winner. As always, tickets are for members only, at fifty cents each, and one free for attending.

Be sure not to miss the officer elections to be held at the October meeting. This is your chance to have some control over the working of the club for the next year. The officers YOU select will be the ones to work for you and the group. Nominations will again be accepted before the elections is held. Come on out and vote!

At the September meeting, the following nominations were accepted:

PRESIDENT: Charles Lusco

VICE-PRESIDENT: Dave Beck  
Charles Brown

DISK LIBRARIAN: Paul Pelfrey

NEWSLETTER EDITOR: Warren Lieuallen

PUBLICATIONS: Bill Morgens

TREASURER: Bill Eckert

MEMBERSHIP: Don Bowlin

SECRETARY: Scott Spears

I apologize if that list is not correct -- that's how I remember it!

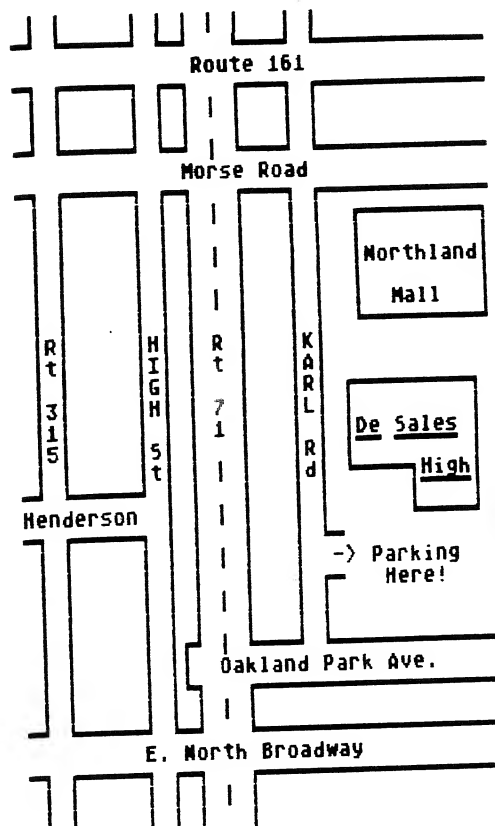
The next meeting of the ACEC Special Interest Groups (SIG's) will be on October 30th (as always, the last Thursday of each month. As was the case for last month, the SIG meeting will again be held at the Grandview Public Library which is located at 1685 West First Ave., a few blocks west of Grandview Avenue. The meeting room is down-stairs. As usual, the meeting will start at 7:15 p.m. The SIG meetings are THE place to be to get those nagging questions answered.

For anyone interested in the

Atari ST computers, be sure to ask at the ACEC meeting about the newly formed ST-SIG. Meetings are held monthly at the Doctors' Hospital North.

See you all at the meeting!

Warren Lieuallen





```

Local Atari BBS Listing

AMIS    AMIS BBS
FRXL    FoReM XL
FRXE    FoReM XE
FRZ6    FoReM 26M
FR10     FoReM 26M-1030 version
BBCS     BB Construction Set
EXPR     Express BBS
CRNA     Carina BBS
****    Custom Software/Unknown
????    No longer in Service?
-----    Non-Atari setup

```

\*=24 Hours    -=Limited Hours  
?=Unknown Hours

A,B,C,E,G,H,I,J,K,L,M,O,Q,R,S,T,U,  
W,X,Y,Z,x,px [x=1-3],+,or ? >[LCRI]

```
W, X, Y, Z, x, dx [x=1-3], +, or ? > [LCR]
```

## The Atari Computer Enthusiasts

In addition to the regular monthly ACEC meetings, we also sponsor a series of Special Interest Groups (SIG's), open to all active ACEC members. Meetings are held on the

Carrier lost. Connection terminated.

# ST SIG NEWSLETTER SUPPLEMENT

FROM THE ACEC ST SPECIAL INTEREST GROUP

---

Welcome to the first issue of the Atari ST SIG Electronic Newsletter. The purpose of this newsletter is to get YOU to send in your tips about how to use whatever software package you own and share this information with others. Any comments, documentation, programming tips, and opinions, whether a single byte or a megabyte, are welcome. Let's get the show on the road:

## TRIALS AND TRIBULATIONS OF PROGRAMMING IN MODULA-2

I am a big Modula-2 programming language fan, but I am also the first to admit that TDI's Modula-2 Developer's Kit is not the most bug-free, well-documented programming environment. In trying to figure out how to set up the Modula-2 files for the best usage, I ran some timing tests:

<u>program size[byte]</u>	<u>Disk</u>		<u>RAMDisk (*)</u>	
	<u>compilation link</u>		<u>compilation link</u>	
15,717	2:18	--	1:58	----
20,748	2:25	4:27	2:14	2:35

[\*] The RAMDisk contains MODULAST folder, all of the \*.SYM, and \*.PRG files, with the source code still on disk A: .

What I have done is placed all my \*.PRG files in the RAMDisk as well as the compiler folder and all the \*.SYM files in the standard library (STDLIB) and the GEM library. I have left the source files and all \*.LNK files on disk. This is my compromise with security and speed since if the ST crashes on me and I lose my RAMDisk files, the program modules will still be on a regular disk. I have submitted to the library an AUTO folder that I use to boot up with Modula-2 files in the RAMDisk. It works with a 1040 ST, but it is easy to modify for a 520ST.

The compiler has a bug in it such that the heap option does not work. If you get a 'Heap Overflow' error message, your only other option is to reduce the number of files that you import into the module or breaking up your module into several modules.

I have given up on the use of the post-mortem debugger that comes with the developer's kit. It is not debugged (pun intended!) and crashes easily.

I have managed to translate some simple C programs from Abacus's GEM PROGRAMMER'S GUIDE book into Modula-2. I intend to submit them to the ST library, where you can pick them up. Abacus's book is a terrible book to try to understand GEM. A much better book is 'PROGRAMMER'S GUIDE TO GEM' by Balma & Fitler. I highly recommend it. I am currently trying to translate some of

their C programs into Modula-2 and I will submit those also to the ST library.

If Modula-2 is more of a mystery to you than GEM, I would recommend Ford's 'MODULA-2: A SOFTWARE DEVELOPMENT APPROACH' to guide you through the mysteries of Modula-2.

#### Modula-2 Hints:

You can append a letter to a number that would indicate its base and use that number anywhere that you can use a regular decimal number.

Ex: 23H is 23 hexadecimal, 12B is 12 octal (base 8), 13C is 13 octal used to assign a character to a CHAR variable. Let me encourage any C or Pascal programmer's out there to write in about their programming experiences on the ST. I am especially interested in knowing whether Mark William's new C package for the Atari ST is any good.

#### XLISP 1.7

Xlisp is an excellent public domain program that is a subset of Common Lisp (Common Lisp is the recent lisp standard that everyone is trying to stick to). My main problems with it is the documentation. The xlisp.doc doesn't give an example with each construct that it describes. One good program to learn Lisp is "Lisp" by Winston & Horn, 2nd edition. All the sample code in the book works in xlisp 1.7 except for a few common Lisp commands that are not implemented (ex: defstruct, array-dimension, and psetq). If you are working on a large number of Lisp functions, you need to write those functions to a file with an editor and then run xlisp and load the file; ex: if the filename is "lesson.lsp" then (load "lesson.lsp") loads the file and places the functions in your work space. In order to speed up the run editor, edit functions, exit editor, run Lisp, load file, test function, and exit Lisp cycle, I place the Xlisp program and the editor in a RAMdisk which speeds up things considerably. Of course the power of Lisp is that you can build your own editor in Lisp. I will attempt to do so and donate it to the public domain if it works.

You can also open a file to the printer to print out stuff via (setq fp (openo "prn:")) and then send your stuff with (print "hello there" fp). A transcript of everything you type can be kept with (transcript "trans.txt"). To stop the transcript simply do (transcript).

I have also put in the ST library some programs in Lisp that allows one to save the functions that one has made during a Lisp session to a file. These are in "init.lsp" file and examples for there use is in "hlp1.txt" file.

Why learn Lisp? At least in the U.S., Lisp is THE tool for implementing and testing out artificial intelligence programs, expert systems, etc. If you have an interest in this field, you can't go wrong by studying Lisp.

### VIP

The ST is not only a nice vehicle for Modula-2, but it can actually be put to some use with VIP, a Lotus 1-2-3 clone. My main problem is that I don't have time to set up spreadsheets to use VIP effectively. If you have any spreadsheets that you copied or made up, please submit them to the ST library with some documentation. I think the library should also attempt to get spreadsheets from any IBM user groups library or Compuserve databases. This will make VIP more useful for the ST SIG members with VIP and provide a valuable resource for future VIP owners.

My only problem with my VIP version is that it does not autoboot on the 1040ST. I have to boot my computer with another disk and then load the VIP program.

### STORAGE

I have used the OSSFORMAT program to format my single as well as double sided disks to 809K. I love the extra storage space, but I am worried whether my single sided disks that are formatted as double sided will give me trouble in the future. Are there any terrible tales out there involving the loss of important data on such abused disks? Currently, I only use these disks as backup disks. A backup disk, for those who don't know, is a disk that holds copies of your data or programs. This is a must, because if you don't then Murphy's law will hit you like lightning and you will lose valuable data at some point in the future.

I have also seen the new Atari ST Hard diskdrive at Computer Express. They would not let me play around with it, so I don't know how well it works. If you have bought one, please submit something about your experience to this newsletter.

### Questions & Answers:

This section is for any questions you may have about anything dealing with the ST. We or hopefully one of our readers will attempt to answer them.

1. I've been having trouble using the ramdisk.mod program in modula-2. I've been getting error #8 whenever I specify a 250K ramdisk. Any help?
2. I've tried to divert the midi/keyboard interrupt vector to my own routine and then call the regular midi/keyboard interrupt vector within my own interrupt handler. However, the system locks up as soon as I type one letter. Any reason why?

## CONCLUSIONS


Again, let me reiterate that the success of this newsletter is going to depend upon YOU. Send in your comments, opinions, and advice about the software you have. The procedure is to copy your file on a disk and exchange the disk for one of the disks of the month (DOM). Please use a FIRST WORD compatible editor (i.e. FIRST WORD has the ability to open your file \*) and tell Sheldon, our ST librarian, that you have something to submit to the newsletter on that disk.

Nasir K. Amra

**if you'd written  
an article, this  
space wouldn't  
be blank,  
would it?**

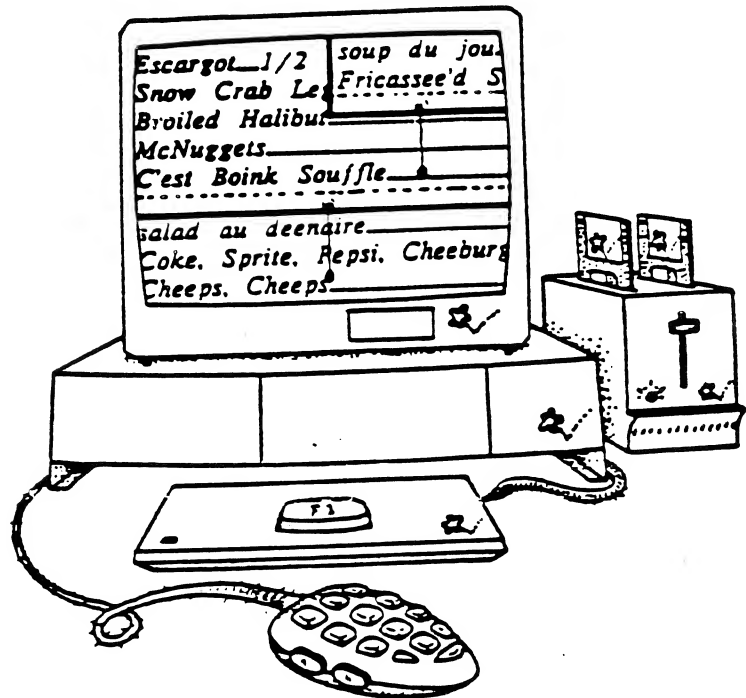
WHEN YOU NEED A COMPUTER

IN THE WORST WAY... Consider the new

  
**Amoeba**

### Features

- CLAIRVOYANT User Interface
- KICKSTAND O.S. Disk
- Interrupt-driven Multi-crashing capability
- Pull/Plop-down menus
- Multiple Storm Windows
- Real-Time Pixels
- Breakfast Serial Interface
- Null Modem Port
- MINNIE Interface
- Variable Clock Speed:
  - 65 at rest
  - 130 after a jog around the block
- Bi-Directional Greyhound Bus
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- Disk Breaks
- Patented Rotating Head Dual Outboard Quad-Dummy 4.5" Disk Drive
- Automatic Read-Protection
- Typographically Sensitive Keyboard
- Programmable Function Key
- Dvorak Mouse



### Bungled Software

- Invisicade Database
- Alfred E. Neuman Spreadsheet
- Creative Bookkeeper
- Rubber Check Personal Finance Software
- DORK I, II, III and Suspenders by INFOcom
- WhosinART Word Processor with built-in hyphenator

### Benchmarks

Erostosthenes Sieve: 2.3 hrs  
Bouncing Ball: 1.6 min

**\$2099<sup>00</sup>**

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### Here's what the experts had to say:

"It'll be a sure-fire HIT"

Larry Tribble, President,  
Mindent Corporation

"Gotta be the most deatest, awesomest, bonst, tubular, trick piece of machinery around today."

Adam Osborne

"A very powerful product; and at those prices, Amoeba will be around for a long time."

Clive Sinclair

"All you need is great graphics!"

Mike Zuwalb, owner,  
"The Amoeba Store"  
(formerly "The Spectra-Video Store")

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# ATARI COMPUTER ENTHUSIASTS OF COLUMBUS

## UPCOMING MEETINGS:

### ACEC

December 8

January 12

### ST-SIG's

December 11

January 15

ACE of Columbus Newsletter  
Warren Lieuallen, Editor  
1652 Hess Boulevard  
Columbus, OH 43212

# FIRST CLASS MAIL

To: